CLAIMS

1. A wet flue gas desulfurizer wherein sulfur dioxide is absorbed into a slurry and an oxygen-containing gas is blown into the slurry to oxidize sulfites present in the slurry, characterized in that a slurry oxidation tank is equipped with a return pipeline for returning a portion of the slurry to a position at or near the bottom of said slurry oxidation tank, and the oxygen-containing gas is blown in at the discharge end of said return pipeline so as to divide the oxygen-containing gas finely by the action of the slurry returned through said return pipeline.

2. A wet flue gas desulfurizer as claimed in claim 1 wherein a portion of the slurry stored in said slurry oxidation tank is withdrawn and returned through said return pipeline.

3. A wet flue gas desulfurizer as claimed in claim 1 or 2 wherein the slurry injected from header pipes is returned through said return pipeline.

4. A wet flue gas desulfurizer as claimed in any of claims 1 to 3 wherein the slurry collected by a mist eliminator is returned through said return pipeline.

5. A wet flue gas desulfurizer as claimed in any of claims 1 to 4 wherein, when a portion of the slurry is withdrawn at a position near the bottom of said slurry oxidation tank and sent to header pipes under pressure by

means of a pressure pump, a slurry delivery pipe is branched from the pipeline for sending the slurry to the header pipes, and the oxygen-containing gas is blown in at the discharge end of said delivery pipe so as to divide the oxygen-containing gas finely by the action of the slurry discharged from said delivery pipe.

6. An oxygen-containing gas blowing device for use in a wet flue gas desulfurizer for removing SO_2 from combustion exhaust gas by wet desulfurization, wherein a fluid reservoir for an absorbing fluid is equipped with a delivery pipe for discharging the absorbing fluid so that its discharge end is open in said fluid reservoir, and an oxygen feed nozzle for injecting an oxygen-containing gas is disposed in the area of the discharged stream in the neighborhood of the discharge end of said delivery pipe.

7. An oxygen-containing gas blowing device for use in a wet flue gas desulfurizer as claimed in claim 6 wherein an injection orifice at the tip of said oxygen feed nozzle is disposed in the area of the jet just discharged from said discharge end.

8. An oxygen-containing gas blowing device for use in a wet flue gas desulfurizer as claimed in claim 6 wherein the upper part of the tip of said delivery pipe is made longer so as to overhang the lower part thereof, and said oxygen feed nozzle is attached so as to extend through the overhanging

part.

9. An oxygen-containing gas blowing device for use in a wet flue gas desulfurizer as claimed in claim 6 wherein said delivery pipe penetrates into said fluid reservoir through the sidewall thereof, and said delivery pipe is disposed in said fluid reservoir so that it is horizontally and radially deflected toward a tangential direction so as to cause the stream discharged from said delivery pipe to flow along the sidewall of said fluid reservoir and so that it is inclined downward.

10. An oxygen-containing gas blowing device for use in a wet flue gas desulfurizer as claimed in claim 6 wherein said oxygen feed nozzle penetrates into said delivery pipe at a position before the discharge end of said delivery pipe.

11. A wet flue gas desulfurizer equipped with an oxygen-containing gas blowing device as claimed in any of claims 6 to 10.